REMARKS

STATUS OF THE APPLICATION

Prior to this Preliminary Amendment, this application contained claims 1, 4-11, and 13-26. A final Office Action dated 4/11/2002 rejected claims 1, 4-10, 14-16, 18-23 and 25-26 under 35 U.S.C. § 103(a) as unpatentable over Bigham et al. (U.S. Pat. No. 5,740,075) in view of Walsh (U.S. Pat, No. 5,825,516) and claims 11, 13, 17, 24 as unpatentable over Bigham et al. in view of Walsh and Skinner, Sr. (U.S. Pat. No. 5,355,401). An Advisory Action mailed 6/3/2002 maintained the Examiner's rejection over Applicants' request for consideration. Claims 1, 14, 20 and 21 have been amended by this Preliminary Amendment, and new claims 27-28 have been added. Hence, after entry of this Preliminary Amendment, claims 1, 4-11 and 13-28 are pending in the application.

THE CLAIMS

Amendments to the Claims:

Applicants have amended claims 1 and 14 more clearly to define the claimed invention. In addition, Applicants have amended claims 20 and 21 to note the antecedent basis for the optical network made in each claim. Applicants have also added new claims 27 and 28. Support for these claims can be found at, *inter alia*, page 8, lines 12-25 and page 11, lines 20-30. Applicants submit that no new matter has been added by these amendments.

Claims rejected under 37 U.S.C. §103(a):

In the final Office Action, the Examiner rejected claims 4-10, 14-16, 18-23 and 25-26 under 35 U.S.C. § 103(a) as unpatentable over Bigham et al. in combination with Walsh. Specifically, the Examiner noted that the claim language failed to clearly define the operation of the power source. In order more clearly to define the claimed invention, amended claim 1 recites, *inter alia*, "an electrical power source configured to supply an electrical supply voltage to power the optical network node." Applicants submit that the new claims are patentable over the

combination of Walsh and Bigham et al., which fail, either alone or in combination, to disclose every limitation of the claims. For instance, claim 1 recites, *inter alia*,

> an electrical power source configured to supply an electrical supply voltage to power the optical network node, the power source comprising an alarm system configured to monitor the operation of the power source and transmit power source operation information to the telecommunications service provider.

None of the cited references teach or suggest an alarm system to monitor the operation of an electrical power source. Walsh does teach an optical power meter for measuring the optical power (*e.g.*, the intensity of transmitted light) in a fiber, but it does not disclose monitoring the electrical power source for its fiber network. This critical distinction can be seen clearly by Walsh's teaching that "the preferred embodiment . . . includes an optical energy to current converter that receives the optical energy transmitted through the fiber and converts it to a current" for measurement. (col. 4, lns. 20-24). Thus, "[t]he system . . . measures the optical power and the light transmission while at the same time passing the data through to the destination." (col. 6, lns. 3-5) (emphasis added). Walsh utterly fails to teach monitoring an electrical power source (or, for that matter, monitoring or even measuring anything but the intensity of the transmitted light).

Moreover, it reasonably cannot be argued that Walsh's optical monitoring system even suggests the alarm system of claim 1. As discussed above, the alarm system monitors the electrical power source, for instance to determine if A/C power has failed. In contrast, the optical power meter of Walsh is designed to "reliably and accurately inform the user of loss factors in the fiber optic cable due to intrinsic and extrinsic factors." (col. 4, lns. 12-14) Walsh discloses that intrinsic factors are "numerical aperture (NA) mismatch" and "core diameter mismatch" and that "these intrinsic problems with the fiber itself cause certain of the light to be lost or displaced." (col. 1, lns. 30-48) (emphasis added). Walsh also defines extrinsic factors as "those contributed by the connector that is used to join adjacent fibers." (col. 4, lns. 51-52). Thus, the invention of Walsh measures only optical transmission problems with the fiber itself or its connectors, not any aspect of the electrical power supply to the fiber network. Although Walsh discloses several loss factors that can be measured by its optical power meter, Walsh

never teaches (or even suggests) that the operation of an electrical power source might be measured or monitored by its optical power meter.

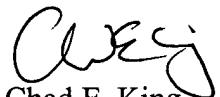
Hence, none of the cited references disclose an alarm system configured to monitor the operation of an electrical power source and therefore fail, either separately or in combination, to establish a *prima facie* case of obviousness with respect to claim 1. For similar reasons, independent claim 14 is allowable over the cited references. Furthermore, dependent claims 4-11, 13, and 15-28 are allowable as depending from allowable base claims as well as being directed to specific novel substitutes. For at least these reasons, Applicants respectfully submit that the claims are in condition for allowance.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,



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APPENDIX A

VERSION TO SHOW MARKINGS WITH CHANGES MADE

1. (Twice Amended) A system for powering one or more devices in a fiber optic communication network, which transmits communication data between a telecommunications service provider and a remote user device, the system comprising:

an optical network node for converting the communication data from a digital optical state to a digital electrical state;

a fiber optic communication medium configured to transfer the communication data between the telecommunications service provider and the optical network node; and

~~a~~ an electrical power source configured to supply an electrical supply voltage to power the optical network node, the power source comprising an alarm system configured to monitor the operation of the power source and transmit power source operation information to the telecommunications service provider.

14. (Four Times Amended) A method for powering one or more devices in a fiber optic communication network, which transmits communication data between a telecommunications service provider and a user device, the method comprising:

transferring digital communication data between the telecommunications service provider and ~~a~~ an optical network node;

converting the digital communication data from an optical state to an electrical state using the optical network node;

transmitting an electrical supply voltage from ~~a~~ an electrical power source to the optical network node;

an alarm system in the power source monitoring the operation of the power source; and

transmitting power source operation information from the alarm system to the telecommunications service provider.

20. (Once Amended) The method as recited in claim 14, wherein the step of transferring digital communication data between the telecommunications service provider and ~~a~~ the optical network node comprises transferring digital communication data between the telecommunications service provider and an optical network unit (ONU).

21. (Once Amended) The method as recited in claim 14, wherein the step of transferring digital communication data between the telecommunications service provider and ~~a~~ the optical network node comprises transferring digital communication data between the telecommunications service provider and a digital subscriber line access multiplexer (DSLAM).

APPENDIX B

PENDING CLAIMS

1. (Twice Amended) A system for powering one or more devices in a fiber optic communication network, which transmits communication data between a telecommunications service provider and a remote user device, the system comprising:

an optical network node for converting the communication data from a digital optical state to a digital electrical state;

a fiber optic communication medium configured to transfer the communication data between the telecommunications service provider and the optical network node; and

an electrical power source configured to supply an electrical supply voltage to power the optical network node, the power source comprising an alarm system configured to monitor the operation of the power source and transmit power source operation information to the telecommunications service provider.

2. (Canceled)

3. (Canceled)

4. (Once Amended) The system of claim 1, wherein the power source is located proximate to the optical network node.

5. (Once Amended) The system of claim 1, wherein the power source is remote from the optical network node and supplies power to a plurality of optical network nodes.

6. (Once Amended) The system of claim 1, wherein the power source is located proximate to the telecommunications service provider.

7. (As filed) The system of claim 1, wherein the power source is located proximate to a digital loop carrier.

8. (As filed) The system of claim 1, wherein the remote user device is a telephone.

9. (As filed) The system of claim 1, wherein the remote user device is a computer.

10. (As filed) The system of claim 1, wherein the remote user device is a television.

11. (Once Amended) The system of claim 17, wherein the power source comprises a plurality of rectifiers, a plurality of converters, a plurality of current limiters, and a plurality of batteries configured to supply the DC voltage to the power source.

12. (Canceled)

13. (Once Amended) The system of claim 1, further comprising one or more conducting mediums configured to connect the alarm system in the power source to the optical network node for relaying power source operation information to the telecommunications service provider over the fiber optic communication medium.

14. (Four Times Amended) A method for powering one or more devices in a fiber optic communication network, which transmits communication data between a telecommunications service provider and a user device, the method comprising:

transferring digital communication data between the telecommunications service provider and an optical network node;

converting the digital communication data from an optical state to an electrical state using the optical network node;

transmitting an electrical supply voltage from an electrical power source to the optical network node;

an alarm system in the power source monitoring the operation of the power source; and

transmitting power source operation information from the alarm system to the telecommunications service provider.

15. (Added in 1/28/02 Amendment) The system as recited in claim 1, wherein the optical network node comprises an optical network unit (ONU).

16. (Added in 1/28/02 Amendment) The system as recited in claim 1, wherein the optical network node comprises a digital subscriber line access multiplexer (DSLAM).

17. (Added in 1/28/02 Amendment) The system as recited in claim 1, wherein the power source comprises an AC power feed for providing power to the power source during normal operation and a DC power feed for providing power the power source when the AC power feed is inoperable.

18. (Added in 1/28/02 Amendment) The system as recited in claim 1, further comprising an electrical conducting medium configured to conduct the electrical supply voltage and the communication data from the optical network node to a the remote user device.

19. (Added in 1/28/02 Amendment) The system as recited in claim 18, further comprising a network interface device connected between the optical network node and the remote user device.

20. (Once Amended) The method as recited in claim 14, wherein the step of transferring digital communication data between the telecommunications service provider and the optical network node comprises transferring digital communication data between the telecommunications service provider and an optical network unit (ONU).

21. (Once Amended) The method as recited in claim 14, wherein the step of transferring digital communication data between the telecommunications service provider and the optical network node comprises transferring digital communication data between the telecommunications service provider and a digital subscriber line access multiplexer (DSLAM).

22. (Added in 1/28/02 Amendment) The method as recited in claim 14, wherein the step of transmitting power source operation information from the alarm system to the

telecommunications service provider comprises transmitting alarm signals to the telecommunications service provider.

23. (Added in 1/28/02 Amendment) The method as recited in claim 14, wherein the step of transmitting power source operation information from the alarm system to the telecommunications service provider comprises transmitting power level and operational data to the telecommunications service provider.

24. (Added in 1/28/02 Amendment) The method as recited in claim 14, wherein the step of transmitting an electrical supply voltage from a power source to the optical network node comprises an AC power feed supplying power to the power source during normal operation and a DC power feed supplying power to the power source when the AC power feed is inoperable.

25. (Added in 1/28/02 Amendment) The method as recited in claim 14, further comprising conducting both the electrical supply voltage and the digital communication data along a single electrical conducting medium from the optical network node to the remote user device.

26. (Added in 1/28/02 Amendment) The method as recited in claim 25, further comprising network interface device interfacing between the optical network node and the remote user device.

27. (New) The system of claim 1, wherein the power source operation information is selected from a group consisting of information about an AC power source, information about a rectifier's voltage, information about a converter's voltage, and information about a current limiter's current.

28. (New) The method as recited in claim 14, wherein monitoring the operation of the power source comprises monitoring information selected from a group consisting of information about an AC power source, information about a rectifier's voltage, information about a converter's voltage, and information about a current limiter's current.

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